AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	Page 1 of Pages 36

2. AMENDMENT/~~MODIFICATION~~ NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
004	January 4, 1999		

6. ISSUED BY	CODE	7. ADMINISTERED BY (If other than Item 6)	CODE
Bureau of Reclamation **Lower Colorado Region** **P.O. Box 61470** **Boulder City NV 89006-1470** **http://www.lc.usbr.gov/~g3100/**	LC-3117		

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State, and ZIP code)	(✓)	9A. AMENDMENT OF SOLICITATION NO.
	✓	**98-SP-30-12410**
		9B. DATED (SEE ITEM 11)
		October 30, 1998
		10A. MODIFICATION OF CONTRACT/ORDER NO.
		10B. DATED (SEE ITEM 13)

CODE	FACILITY CODE

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

[**X**] The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers [ ] is extended, [**X**] is not extended.

Offerors must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning 1 copy of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (if required)

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

(✓)	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT/ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
	D. OTHER (Specify type of modification and authority)

E. **IMPORTANT**: Contractor [ ] is not [ ] is required to sign and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/~~MODIFICATION~~ (Organized by UCF section headings, including solicitation/contract subject matter where feasible)

Project Title: Seawater Barrier Automation and Telemetry Study, Los Angeles Basin, Southern California Coastal Water Supply Study

Purpose of Amendment: The purpose of this amendment is to answer questions submitted in writing by various prospective offerors.

Receipt of Offers: The date for receipt of offers remains January 13, 1999. The time for receipt of offers remains 3 p.m., local time. The place for receipt of offers remains the Bureau of Reclamation, Lower Colorado Regional Office, Annex Building, Room AA-104, Nevada Highway and Park Street, Boulder City, Nevada.

Acknowledgment: See block 11 above regarding how to acknowledge this amendment. The acknowledgment must be received at the place designated for receipt of offers (see block 9 of the "Solicitation/Contract/Order for Commercial Items," Standard Form 1449).

Offer Modification: See block 11 above if you have submitted your offer and now desire to modify it or withdraw it.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)	
15B. CONTRACTOR/OFFEROR _____ (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY_____ (Signature of Contracting Officer)	16C. DATE SIGNED

Description of the Changes:

1. The answers are hereby provided to questions that have been submitted by potential offerors.

2. In Section A, Block 8. of the Standard Form 1449, "Solicitation/Contract/Order for Commercial Items," has been modified to reflect the new proposal due date.

3. Various changes have been made to the solicitation and specifications as a result of the questions and answers. Refer to the listing below for the specific pages which were revised.

4. Two Attachments, H and I, have been added to Section D - Attachments.

Instructions:	***Remove***	***Replace with Revised***
	N/A	Questions and Answers (8 pages)
	Table of Contents, pages i and ii	Table of Contents, pages i and ii
	SF-1449, pages A-1 and A-2	SF-1449, pages A-1 and A-2
	Pages C-5 thru C-7	Pages C-5 thru C-8
	Pages 1-5 thru 1-10	Pages 1-5 thru 1-10
	Page D-1	Page D-1
	N/A	Attachments H and I (8 pages + 2 cover sheets)

Questions and Answers

The following five sets of questions were received from various prospective offerors. Our answers are given below each question. The solicitation has been revised or supplemented where appropriate to incorporate our answers.

Question Set 1:

1. The SOL says the Department already has an existing telemetry system installed at some sites in the County including the West Coast Barrier Project. Please explain in detail about this system.

- How many sites?
- What is the brand and what are the specs of the datalogger/RTU in use
- What are the brands and model numbers of the sensors in use at WCBBP?
- What is the brand and what are the specs of radio in use?
- Exact radio frequency?
- What RF protocol is in use?
- Is the data retrieval software at the base station proprietary?
- How old is the system?
- What is the condition of this system?
- What has been the recent history of reliability of the system?

Answer: The West Coast Basin telemetry system is now in the investigation and design phase. There is no history or design detail available at this time. For existing County installed equipment, see Attachments H and I (added by this amendment) for the "Dams Automated Data Acquisition System, System Description" and the "Spreading Grounds Telemetry System, System Description" respectively.

2. Questions concerning Section 4 in the Statement of Work (SOW):

- 4.4.4.4 Please explain. Does this mean, for example, using a handheld readout device to monitor the reading from a pressure sensor? Which methods will be used for manual measurements?

Answer: The system proposed by the offeror shall not interfere with present manual methods which are electronic sounder, mechanical differential pressure gage, and steel tape or air line.

- 4.4.7.3 Please list the name, version and any other pertinent information on this software.

Answer: Software shall be SQL compatible, Oracle or SQL Anywhere.

- 4.6.2 Are there written specifications on what will be deemed "consistent with manual measurements?"

Answer:

Operating Parameter	Accuracy
Observation Well Water Level	+ or - 0.1 foot
Injection Well Pressure Head	+ or - 1.0 foot
Packer Pressure	+ or - 2.0 feet
Injection Well Flow Rate (Low)	5% for 0.01 to 0.5 cfs
Injection Well Flow Rate (High)	2% for 0.5 to 5.0 cfs
Water Main Flow Rate (Low)	2% for 0.5 to 5.0 cfs
Water Main Flow Rate (High)	1% for 5.0 to 25 cfs
Water Main Pressure	+ or - 2 psi

3. Questions concerning Attachment E:

- "No local power" What are the acceptable/practical options for power to the sites? Solar panels and a float-charged battery? Line voltage to the panel to charge the battery?
- Please explain a bit more about the "antenna location problems." Vandalism? Easements? Will it be necessary to tear up the pavement to run cable to acceptable locations?

Answer: Most sites are underground vaults without power. Part of the study requires the successful offeror to evaluate individual sites and recommend appropriate power. There are a wide variety of conditions from site to site. Vandalism, easements, aesthetics and cable routing are all potential problems that should be addressed by the successful offeror as part of the study.

4. Questions concerning Attachment F. Several of the configurations don't list a datalogger

- Will each site require a datalogger and telemetry or will several measurement sites be linked to one datalogger? Please explain.

Answer: Part of the study is to determine data logger requirements. It is expected that one data logger can support more than one site.

5. Questions concerning the concept drawing in Attachment G.

- Will the datalogger and RF equipment be housed in above-ground panels or in the vaults below ground?
- If panels, who will be responsible for establishing easements? For constructing the panels?
- The drawing shows cable runs from several wells to the datalogger and RF equipment in one central location Do the conduits for these cable runs already exist? If not, who will be responsible for easements and construction? What is the average cable run and the longest cable run projected?

Answer: Choice of above-ground or in-vault panels is to be recommended by the successful offeror. The County will obtain or assist in obtaining easements for panel and cable runs. Cable runs do not exist at this time. The longest cable run is expected to be approximately 1,000 feet.

Question Set 2:

The following questions are keyed to the paragraph number of the solicitation.

Para 4.1 Task 1. Is it envisioned that the contractor do a physical onsite inventory of each of the wells, facilities, etc. of concern? Or is there documentation available which would provide the majority of the equipment and software information needed to familiarize ourselves with the current systems?

Answer: The successful offeror shall conduct on-site surveys as part of the project.

Para 4.2.4. Is the intent to have a physical inventory done for each of the designated barrier injection wells, observation wells, and control and monitoring points, which would bear on the successful operation of the telemetry system? Does this pertain to both the Alamitos and Dominguez Barrier Projects equipment and sites?

Answer: The successful offeror shall conduct on-site surveys as part of the project. This applies to both the Alamitos and the Dominguez barriers.

Para 4.3 Task 3. What is the nature of the "instrumentation" whose techniques you want recommended? We believe this paragraph refers to the monitoring and control philosophy and techniques for the actual well site(s) or are you referring to the radio/phone/etc. methods of communicating (e.g., from well back to operations center)?

Answer: SOW paragraph 4.3 Task 3 applies to both measurement and transmission instrumentation.

Para 4.4.1. This paragraph refers to operating the injection and extraction wells but no mention is made of what is to be operated in this paragraph's tables or in the referenced attachments. What do you want controlled?

Answer: System intent is to monitor operating parameters of injection and observation wells. There may be some limited valve control depending on study results and feasibility.

Para 4.5 Task 5. What is the approximate size of the demonstration system? For instance, will a demonstration project including one well and one master station be sufficient? Will it include the transmission of data back to a remotely located central control room?

Answer: The pilot demonstration system should include enough sites to verify acceptable operation and calibration. The pilot demonstration system must include a central control station with associated data transmission and database management.

Para 4.4.7.2. Does this paragraph refer to checking the health of the sensor (e.g., via a fieldbus type protocol) or to checking the accuracy of the actual measurement the sensor is taking.

Answer: Each sensor must be individually addressable.

Para 4.4.7.8. What does full conversion of engineering units mean? What would be an example?

Answer: Provision for reading flow in gpm or cfs and pressure in psi or feet is required.

Para 2.0(7). This paragraph references a Section 6.4, but there is no Section 6.4 in the Solicitation.

Answer: This amendment hereby deletes SOW paragraph 2.0(7).

Para 2.0(8). This paragraph does not actually state the number of weeks the Department will provide review comments after the consultant submits his reports. What is the review period?

Answer: This amendment hereby revises SOW paragraph 2.0(8) as shown on the revised page.

Question Set 3:

1. What instrumentation is specified for the WCBBP wells?

Answer: This instrumentation has not yet been specified.

2. What is the manufacturer of the PLCs in your existing automated systems? Specified in the WCBBP design?

Answer: See answer to 1. above. See Attachments H & I (added by this amendment) for descriptions of existing County equipment.

3. What is the manufacturer of the telemetry equipment in your existing systems? Specified in the WCBBP design?

Answer: See answer to 1. and 2. above.

4. Please describe your existing telemetry system equipment in as much detail as possible.

Answer: See answer to 1. and 2. above.

5. What type of hardware and software platforms are used for data management by the Bureau? Is it PC based? UNIX based? Other?

Answer: We expect the system to be PC-based unless the offeror presents a convincing proposal for UNIX or other platform.

6. What type of data management software does the Bureau of Reclamation currently use? Does the Bureau plan to continue using the same software in the future? Does the software have Graphical User Interface? Is the software GIS based and is GIS important for this project?

Answer: Data management shall be SQL compatible. Oracle or SQL Anywhere.

7. Does the Bureau of Reclamation have a PC-based network in the office that will be used as the Master Control location? What network protocol is used? (e.g., Novell, NT?)

Answer: Offerors should assume that there is no available network capacity.

8. Do Bureau of Reclamation offices have access to the Internet? Are they networked? Are the office networks PC-based?

Answer: Existing networks are PC-based token ring configuration.

9. If Bureau of Reclamation offices have Internet access, is it full-time through a T-1 line or other full-time connection?

Answer: Internet access is available.

10. Page 1-9, Section 4.4 of the RFP says, "This design will use the field monitoring and transmission equipment specified for the WCBBP telemetry contract." Does this mean that the Bureau of Reclamation wants the exact same design as for the WCBBP?

Answer: The intent of the language of SOW paragraph 4.4 is to ensure standardization of the systems for ease of maintenance. See responses to 1. and 2. above.

11. Will alternatives to the WCBBP design be considered?

Answer: All proposals received by the proposal due date will be evaluated in accordance with Solicitation Provision 3, 52.212-2, Evaluation.

12. Will control of sites via Web Page with appropriate encryption and access codes be allowed due to security reasons?

Answer: Control of sites via Web Page would be acceptable provided adequate safe guards are implemented.

13. Would the Bureau be interested in accessing a live demonstration of a similar system currently controlled via Web Page?

Answer: Solicitation Provision 1(g), Contract Award, states that the Government intends to evaluate offers and will award a contract without discussions with offerors. Offerors should include all information in their initial written offers that will allow the Government to comprehensively evaluate their offers. See Solicitation Provision 3, 52.212-2, Evaluation, for a description of the evaluation factors we will use. See Solicitation Provision 2.1, Offeror's Work Plan, for a description of what information should be included in each offer.

14. Are there any underground conduits between the wells and sites currently installed that could be used to add additional cabling for controls/telephone/TV cable?

Answer: There are no existing underground power or signal cable runs of any kind.

Question Set 4:

1. Will the BUREC and/or the County allow the same entity to do the design and furnish the telemetry equipment?

Answer: This subject solicitation is for the study, design, and optional implementation of a pilot Seawater Barrier Automation system. Any future Federal solicitation (for furnishing and installing the complete system recommended and designed under this contract) will be issued as full and open competition.

2. Does BUREC and/or the County want all wells instrumented in the second option or can the contractor propose a representative selection of wells for this job?

Answer: We anticipated that a selected group of wells would be used in the pilot demonstration program to verify design. The number of wells and scope of the pilot demonstration program is to be proposed by each offeror as part of their response to this RFP (see Solicitation Provision 2.1(a)(1) and SOW paragraph (4.5).) Offerors should note that Price comprises 25% of the total evaluation weight.

Question Set 5:

1. Section 1.6 of the Statement of Work says the "Contractor will coordinate access" to the various sites with LA County DPW. Please elaborate. Will the contractor have free access at all hours? Will a DPW employee have to be present? Are any of the sites locked?

Answer: Access to the various sites is limited due to operational and safety requirements. All sites are secured in some fashion. The successful offeror will be provided unescorted access after submission and approval of the required safety plan and liability insurance.

Table of Contents

ATTACHMENTS

SOLICITATION PROVISIONS
(This section will be removed from the contract document)

SOLICITATION/CONTRACT/ORDER FOR COMMERCIAL ITEMS

OFFEROR TO COMPLETE BLOCKS 12, 17, 23, 24, & 30

1. REQUISITION NUMBER	PAGE 3 OF 71 PAGES
98302300036	

2. CONTRACT NO.	3. AWARD/EFFECTIVE DATE	4. ORDER NUMBER	5. SOLICITATION NUMBER	6. SOLICITATION ISSUE DATE
			98-SP-30-12410	**10/30/98**

7. FOR SOLICITATION INFORMATION CALL:	a. NAME	b. TELEPHONE NUMBER *(No collect calls)*	8. OFFER DUE DATE/ LOCAL TIME
	Randy J. Belew (*e-mail:* rbelew@lc.usbr.gov)	**(702) 293-8570**	**01/13/99 @ 3 PM**

9. ISSUED BY — CODE LC-3117

Mail to:

Bureau of Reclamation
Lower Colorado Regional Office
P.O. Box 61470
Boulder City NV 89006-1470

Overnight Mail to:

Bureau of Reclamation
Lower Colorado Regional Office
400 Railroad Avenue
Boulder City NV 89005

10. THIS ACQUISITION IS
- [X] UNRESTRICTED
- [ ] SET ASIDE % FOR
  - [ ] SMALL BUSINESS
  - [ ] SMALL DISADV. BUSINESS
  - [ ] 8(a)

SIC: **8711**

SIZE STANDARD: **$2.5 million**

11. DELIVERY FOR FOB DESTINATION UNLESS BLOCK IS MARKED
- [ ] SEE SCHEDULE

12. DISCOUNT TERMS

- [ ] 13a. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 700)

13b. RATING

14. METHOD OF SOLICITATION
- [ ] RFQ [ ] IFB [X] RFP

15. DELIVER TO — CODE

16. ADMINISTERED BY — CODE LC-3117

Bureau of Reclamation
Lower Colorado Regional Office
P.O. Box 61470
Boulder City NV 89006-1470

17a. CONTRACTOR/ OFFEROR — CODE — FACILITY CODE

TELEPHONE NO.

18a. PAYMENT WILL BE MADE BY — CODE D-7734

U.S. Department of the Interior
Bureau of Reclamation
Reclamation Service Center
P.O. Box 25508
Denver CO 80225-0508

SUBMIT INVOICES TO ADDRESS IN BLOCK 16.

- [ ] 17b. CHECK IF REMITTANCE IS DIFFERENT AND PUT SUCH ADDRESS IN OFFER

18b. SUBMIT INVOICES TO ADDRESS SHOWN IN BLOCK 18a UNLESS BLOCK BELOW IS CHECKED
- [ ] SEE ADDENDUM

19. ITEM NO.	20. SCHEDULE OF SUPPLIES/SERVICES	21. QUANTITY	22. UNIT	23. UNIT PRICE	24. AMOUNT
	SEE CONTINUATION ON PAGE B-3 *(Attach Additional Sheets as Necessary)*				

25. ACCOUNTING AND APPROPRIATION DATA

26. TOTAL AWARD AMOUNT *(For Govt. Use Only)*

- [X] 27a. SOLICITATION INCORPORATES BY REFERENCE FAR 52.212-1, 52.212-4. FAR 52.212-3 AND 52.212-5 ARE ATTACHED. ADDENDA [X] ARE [ ] ARE NOT ATTACHED.
- [ ] 27b. CONTRACT/PURCHASE ORDER INCORPORATES BY REFERENCE FAR 52.212-4. FAR 52.212-5 IS ATTACHED. ADDENDA [ ] ARE [ ] ARE NOT ATTACHED.

28. [X] CONTRACTOR IS REQUIRED TO SIGN THIS DOCUMENT AND RETURN 2 COPIES TO ISSUING OFFICE. CONTRACTOR AGREES TO FURNISH AND DELIVER ALL ITEMS SET FORTH OR OTHERWISE IDENTIFIED ABOVE AND ON ANY ADDITIONAL SHEETS SUBJECT TO THE TERMS AND CONDITIONS SPECIFIED HEREIN.

29. [ ] AWARD OF CONTRACT: REFERENCE _____ OFFER DATED _____. YOUR OFFER ON SOLICITATION (BLOCK 5), INCLUDING ANY ADDITIONS OR CHANGES WHICH ARE SET FORTH HEREIN, IS ACCEPTED AS TO ITEMS:

30a. SIGNATURE OF OFFEROR/CONTRACTOR

31a. UNITED STATES OF AMERICA *(SIGNATURE OF CONTRACTING OFFICER)*

30b. NAME AND TITLE OF SIGNER *(TYPE OR PRINT)*	30c. DATE SIGNED	31b. NAME OF CONTRACTING OFFICER *(TYPE OR PRINT)*	31c. DATE SIGNED

32a. QUANTITY IN COLUMN 21 HAS BEEN
- [ ] RECEIVED [ ] INSPECTED [ ] ACCEPTED, AND CONFORMS TO THE CONTRACT, EXCEPT AS NOTED

32b. SIGNATURE OF AUTHORIZED GOVT. REPRESENTATIVE	32c. DATE

41a. I CERTIFY THIS ACCOUNT IS CORRECT AND PROPER FOR PAYMENT

41b. SIGNATURE AND TITLE OF CERTIFYING OFFICER	41c. DATE

33. SHIP NUMBER	34. VOUCHER NUMBER	35. AMOUNT VERIFIED CORRECT FOR
[ ] PARTIAL [ ] FINAL		

36. PAYMENT
- [ ] COMPLETE [ ] PARTIAL [ ] FINAL

37. CHECK NUMBER

38. S/R ACCOUNT NUMBER	39. S/R VOUCHER NUMBER	40. PAID BY

42a. RECEIVED BY *(Print)*

42b. RECEIVED AT *(Location)*

42c. DATE REC'D *(YY/MM/DD)*	42d. TOTAL CONTAINERS

AUTHORIZED FOR LOCAL REPRODUCTION

SEE REVERSE FOR OMB CONTROL NUMBER AND PAPERWORK BURDEN STATEMENT

STANDARD FORM 1449 (4-96)
Prescribed by GSA - FAR (48 CFR) 53.212

OMB No.: 9000-0136
Expires: 09/30/98

2.2 1452.217-906 Option for Additional Numbered Line Items--Bureau of Reclamation--Lower Colorado Region (Mar 1998)

The Government may require performance of services under Optional Line Items 4 and 5, identified in Section B, Schedules 2 and 3, as "Pilot Program" and "Design Plans and Specifications for Complete System" respectively, in the quantity and at the prices stated in the Schedules. The Contracting Officer may exercise the option by written notice to the Contractor within no later than 30 calendar days prior to the completion of the contract performance period then in effect. The performance period of the Option, if the Contracting Officer exercises the option, shall be as defined in Section B, paragraph 3.1 above.

2.3 1452.228-70 LIABILITY INSURANCE--DEPARTMENT OF THE INTERIOR (JUL 1996)

(a) The Contractor shall procure and maintain during the term of this contract and any extension thereof liability insurance in form satisfactory to the Contracting Officer by an insurance company which is acceptable to the Contracting Officer. The named insured parties under the policy shall be the Contractor and the United States of America. The amounts of the insurance shall be not less than as follows:

WORKERS' COMPENSATION AND EMPLOYER'S LIABILITY

$100,000

GENERAL LIABILITY

$500,000 per occurrence

AUTOMOBILE LIABILITY

$200,000 each person
$500,000 each occurrence
$ 20,000 property damage

(b) Each policy shall have a certificate evidencing the insurance coverage. The insurance company shall provide an endorsement to notify the Contracting Officer 30 days prior to the effective date of cancellation or termination of the policy or certificate; or modification of the policy or certificate which may

% **adversely affect the interest of the Government in such insurance. The certificate**
% **shall identify the contract number, the name and address of the Contracting**
% **Officer, as well as the insured, the policy number and a brief description of**
% **contract services to be performed. The Contractor shall furnish the Contracting**
% **Officer with a copy of an acceptable insurance certificate prior to beginning the**
% **work.**

3. 52.212-5 CONTRACT TERMS AND CONDITIONS REQUIRED TO IMPLEMENT STATUTES OR EXECUTIVE ORDERS--COMMERCIAL ITEMS (OCT 1998)

(a) The Contractor agrees to comply with the following FAR clauses, which are incorporated in this contract by reference, to implement provisions of law or Executive orders applicable to acquisitions of commercial items:

(1) 52.222-3, Convict Labor (E.O. 11755); and

(2) 52.233-3, Protest After Award (31 U.S.C 3553).

(b) The Contractor agrees to comply with the FAR clauses in this paragraph (b) which the contracting officer has indicated as being incorporated in this contract by reference to implement provisions of law or executive orders applicable to acquisitions of commercial items or components:

__X__ **(1) 52.203-6, Restrictions on Subcontractor Sales to the Government, with Alternate I (41 U.S.C. 253g and 10 U.S.C. 2402).**
____ (2) Reserved
__X__ **(3) 52.219-8, Utilization of Small Business Concerns and Small Disadvantaged Business Concerns (15 U.S.C. 637 (d)(2) and (3));**
____ (4) 52.219-9, Small, Small Disadvantaged and Women-Owned Small Business Subcontracting Plan (15 U.S.C. 637 (d)(4));
____ (5) 52.219-14, Limitation on Subcontracting (15 U.S.C. 637(a)(14)).
__X__ **(6)(i) 52.219-23, Notice of Price Evaluation Adjustment for Small Disadvantaged Business Concerns (Pub. L. 103-355, section 7102, and 10 U.S.C. 2323) (if the offeror elects to waive the adjustment, it shall so indicate in its offer).**
____ (6)(ii) Alternate I of 52.219-23.
__X__ **(7) 52.222-26, Equal Opportunity (E.O. 11246).**
__X__ **(8) 52.222-35, Affirmative Action for Disabled Veterans and Veterans of the Vietnam Era (38 U.S.C. 4212).**

__X__ **(9) 52.222-36, Affirmative Action for Workers with Disabilities (29 U.S.C. 793).**
__X__ **(10) 52.222-37, Employment Reports on Disabled Veterans and Veterans of the Vietnam Era (38 U.S.C. 4212).**
____ (11) 52.225-3, Buy American Act--Supplies (41 U.S.C. 10).
____ (12) 52.225-9, Buy American Act--Trade Agreements Act--Balance of Payments Program (41 U.S.C. 10, 19 U.S.C. 2501-2582).
____ (13) Reserved.
____ (14) 52.225-18, European Union Sanction for End Products (E.O. 12849).
__X__ **(15) 52.225-19, European Union Sanction for Services (E.O. 12849).**
____ (16)(i) 52.225-21, Buy American Act--North American Free Trade Agreement Implementation Act--Balance of Payments Program (41 U.S.C 10, Pub. L. 103-187).
____ (16)(ii) Alternate I of 52.225-21.
____ (17) 52.239-1, Privacy or Security Safeguards (5 U.S.C. 552a).
____ (18) 52.247-64, Preference for Privately Owned U.S.-Flag Commercial Vessels (46 U.S.C. 1241).

(c) The Contractor agrees to comply with the FAR clauses in this paragraph (c), applicable to commercial services, which the Contracting Officer has indicated as being incorporated in this contract by reference to implement provisions of law or executive orders applicable to acquisitions of commercial items or components:

____ (1) 52.222-41, Service Contract Act of 1965, As amended (41 U.S.C. 351, et seq.).
____ (2) 52.222-42, Statement of Equivalent Rates for Federal Hires (29 U.S.C. 206 and 41 U.S.C. 351, et seq.).
____ (3) 52.222-43, Fair Labor Standards Act and Service Contract Act--Price Adjustment (Multiple Year and Option Contracts) (29 U.S.C. 206 and 41 U.S.C. 351, et seq.).
____ (4) 52.222-44, Fair Labor Standards Act and Service Contract Act--Price Adjustment (29 U.S.C. 206 and 41 U.S.C. 351, et seq.).
____ (5) 52.222-47, SCA Minimum Wages and Fringe Benefits Applicable to Successor Contract Pursuant to Predecessor Contractor Collective Bargaining Agreement (CBA) (41 U.S.C. 351, et seq.).

(d) Comptroller General Examination of Record. The Contractor agrees to comply with the provisions of this paragraph (d) if this contract was awarded using other than sealed bid, is in excess of the simplified acquisition threshold, and does not contain the clause at 52.215-2, Audit and Records-- Negotiation.

(1) The Comptroller General of the United States, or an authorized representative of the Comptroller General, shall have access to and right to examine any of the Contractor's directly pertinent records involving transactions related to this contract.

(2) The Contractor shall make available at its offices at all reasonable times the records, materials, and other evidence for examination, audit, or reproduction, until 3 years after final payment under this contract or for any shorter period specified in FAR Subpart 4.7, Contractor Records Retention, of the other clauses of this contract. If this contract is completely or partially terminated, the records relating to the work terminated shall be made available for 3 years after any resulting final termination settlement. Records relating to appeals under the disputes clause or to litigation or the settlement of claims arising under or relating to this contract shall be made available until such appeals, litigation, or claims are finally resolved.

(3) As used in this clause, records include books, documents, accounting procedures and practices, and other data, regardless of type and regardless of form. This does not require the Contractor to create or maintain any record that the Contractor does not maintain in the ordinary course of business or pursuant to a provision of law.

(e) Notwithstanding the requirements of the clauses in paragraphs (a), (b), (c) or (d) of this clause, the Contractor is not required to include any FAR clause, other than those listed below (and as may be required by an addenda to this paragraph to establish the reasonableness of prices under Part 15), in a subcontract for commercial items or commercial components--

(1) 52.222-26, Equal Opportunity (E.O. 11246);

(2) 52.222-35, Affirmative Action for Disabled Veterans and Veterans of the Vietnam Era (38 U.S.C. 4212);

(3) 52.222-36, Affirmative Action for Workers with Disabilities (29 U.S.C. 793).

(4) 52.247-64, Preference for Privately Owned U.S.-Flagged Commercial Vessels (46 U.S.C. 1241) (flow down not required for subcontracts awarded beginning May 1, 1996).

Table 1A - List of Required Submittals

LIST OF REQUIRED SUBMITTALS					
RSN	Item	Clause or Reference Paragraph	Submittals Required	No. of sets to be furnished	Due date or Delivery time
1	Bonds	Clause 52.228-16	Performance and payment bonds	1 to CO	Within 15 calendar days after award
2	Payment	Clauses 52.212-4(i) and 52.232-33	Payment information	1 to CO	After award but no later than 15 days prior to initial request for payment
3	**Insurance - Work on a Government installation**	**1452-228-70**	**(1) Written certification that the required insurance has been obtained (2) Current certification of insurance for each subcontractor**	**1 each to CO**	**(1) Before commencing on-site performance (2) Upon CO request**
4	Safety Plan	Paragraph 1.7	Safety plan	2 to COR	Prior to commencing on-site performance
5	Recommended Design Report	Paragraph 4.3	Report	2 to COR	Within 30 days of Contract Award
6	Preliminary Design	Paragraph 4.4	Design plans	2 to COR	Within 30 days of Government approval of the Recommended Design Report
7	Design for Demonstration System	Paragraph 4.5	Specifications and Design Plans	2 to COR	Not later than 30 days prior to the end of the base performance period
8	As-Built Plans	Paragraph 4.6.1.3	As-Built Plans of the Demonstration System	2 to COR	Not later than 30 days prior to the end of Option 1 performance period
9	Demonstration System O&M Manuals	Paragraphs 4.6.3.1 and 4.6.4.1	(1) Field Equipment O&M Manuals (2) Office Equipment and software O&M Manuals	2 each to COR	Prior to end of Option 1 performance period

LIST OF REQUIRED SUBMITTALS					
RSN	Item	Clause or Reference Paragraph	Submittals Required	No. of sets to be furnished	Due date or Delivery time
% **10**	Final Design	Paragraphs 4.7.1 and 4.7.2	(1) Design plans and specifications for complete system (2) Revised O&M Manuals	2 each to COR	Prior to end of Option 2 performance period

1.5 Protection of Existing Installations and Structures

The Contractor shall safeguard the existing facilities, installations and equipment, from any potential harm resulting from their operations. Any materials furnished by the Contractor to provide protection of the existing facilities, installations and equipment, shall remain the property of the Contractor and, upon completion of the work, shall be removed from the jobsite by the Contractor.

The Contractor shall repair, at Contractor expense, any damage to real or personal property caused by Contractor action or by failure of the Contractor to adequately protect the property. If the Contractor fails to make such repairs in a timely manner, the Government may elect to repair the damage and to charge the Contractor the costs of repair.

1.6 Access to Jobsite

The Contractor shall coordinate access to the various sites and facilities subject to this study, with the Los Angeles County Department of Public Works.

1.7 Safety and Health

The Contractor shall not require any employee in the performance of this SOW to work under conditions which are unsanitary, hazardous, or dangerous to the employee's health or safety, as determined under Reclamation Safety and Health Standards (RSHS) promulgated by the Secretary of Labor under section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 327 et seq), as amended, and Reclamation Safety and Health Standards, published by the Bureau of Reclamation.

The Contractor shall comply with the Bureau of Reclamation "Reclamation Safety and Health Standards" manual. The RSHS manual can be ordered from: The Government Printing Office, Superintendent of Documents, North Capitol and H St. N.W., MS-SSMC - Room 566, Washington, D.C. 20401 (Stock item GPO-024-003-00178-3).

The Contractor shall comply with all applicable safety and occupational health requirements set forth in 29 CFR 1910, OSHA’s General Industry Standards. If the Contractor fails or refuses to promptly comply with safety requirements, the CO may issue an order stopping all or part of the work until satisfactory corrective action has been taken.

1.8 Other Contracts

The Government may undertake or award other contracts for additional work in or around the Project facilities. The Contractor shall fully cooperate with the other Contractors and with Government employees and shall carefully adapt scheduling and performing the work under this SOW to accommodate the other work, heeding any direction that may be provided by the CO. The Contractor shall not commit or permit any act that will interfere with the performance of work by any other Contractor or Government employees.

2.0 GOVERNMENT-FURNISHED INFORMATION

The Government will furnish the following information to the Contractor:

(1) Data related to the seawater barriers is available in printed and electronic forms. The data includes injection well records, groundwater elevations, well and injection water supply structure construction details, aquifer characteristics, geologic logs, and well maintenance and modification histories.

(2) Well schematics, electric logs, partial geologic cross sections, reports, and other like particulars can be photocopied from Department files.

(3) Photographs and location maps of various wells and control points. Construction drawings of barrier facilities are available from the Department map vault in either printed copy or in electronic format (TIFF).

(4) Related studies and reports conducted by the Department, other agencies, or contract consultants.

(5) Descriptions of computer hardware and software currently used by the Department.

(6) Department field staff will assist the contractor in gaining access to any field facility required for purposes the work described herein. Two weeks notice is required by the Department to schedule the appropriate personal to assist the contractor.

~~(7) The Department will meet with the consultant for reviews as stipulated in Section 6.4.~~

(8) ~~The Department will provide review comments within weeks of receipt of all reports submitted by the consultant.~~ **The Government will complete review of submittals in accordance with SOW paragraph 1.4, Submittal Requirements.**

3.0 CONTRACTOR-FURNISHED ITEMS AND SERVICES

Except for those items or services specifically stated in Section 2.0 as Government-furnished, the Contractor shall furnish all items and services needed to perform the work required in this SOW.

4.0 SPECIFIC TASKS

The Contractor shall provide all personnel, equipment, materials, supervision and other items and services necessary to perform the study as detailed in this SOW.

This scope of work is provided as a guide to achieve the objective stated in section 1.0. The consultant shall obtain, review, organize, and incorporate any information pertinent to the study and design. The services to be performed by the consultant shall include but not necessarily be limited to the following items of work outlined below. The consultant should recommend work items not listed, or any other changes, if they are believed to better suit the objective.

4.1 Task 1 - Identify Methods and Inventory Conditions

The Contractor shall provide all personnel, equipment, materials, supervision and other items necessary to evaluate the Department's existing and proposed telemetry system for the dams, spreading grounds and West Coast Basin Barrier Project monitoring wells. The consultant should familiarize himself with the system components, radio transmission facilities, programmable logic controllers, flow meters, transducers, conductivity meters, base station computer hardware and computer software. The consultant should also familiarize himself with the current Barrier Operations Hydrologic System Database.

4.2 Task 2 - Analyze

The Contractor shall provide all personnel, equipment, materials, supervision and other items necessary to:

4.2.1. Analyze the current constructed and proposed Department telemetry systems at the Dams, Spreading Grounds, and West Coast Basin Barrier Project well facilities.

4.2.2. Analyze the current Department data collection methods with respect to their effectiveness.

4.2.3. Analyze existing conditions and identify appropriate alarm signal activation parameters of the facilities to be monitored as follows:

Item	Monitoring Issues
Injection Wells	Orifice plates and sampling ports
	Water level sound tubes
	Pressure measurement ports
	Packer pressure measurement ports
	Vault flooding due to well leakage

Item	Monitoring Issues
Extraction Wells	Water level Flow rate
Observation Wells	Water level Flow rate
Pressure Reduction Station	Upstream pressure Downstream pressure Flow signal from Metropolitan Water District

4.2.4. Inventory and describe other conditions at each of the designated barrier injection wells, observation wells, and control or monitoring points which could bear on the successful operation of the telemetry system.

4.3. Task 3 - Recommended Design Report

Complete a report in which the recommended instrumentation techniques to achieve an operational system are discussed. Include a discussion of the advantages and disadvantages of the recommended techniques and those not recommended. Recommended techniques shall be appropriate for various types of barrier injection wells, observation wells, and control valves.

4.4 Task 4 - Preliminary Design

Provide a preliminary design for an overall telemetry system for the Alamitos and Dominguez Gap Barrier Projects with the capabilities listed below. The Department may elect to reduce the number of barriers and wells or control points evaluated during the study. Emphasis on compatibility with existing and planned County systems and facilities is of primary importance. In particular the West Coast Basin Barrier is stressed since maintenance, operations, staff and data management are common to all three seawater intrusion barrier facilities. This design will use the field monitoring and transmission equipment specified for the WCBBP telemetry contract. The County has a number of existing radio communications sites located throughout the County. These sites which serve pump plants and other telemetry systems are located as shown in Attachment D.

4.4.1. The telemetry system design should be able to collect data required to operate and monitor the injection and extraction wells including, but not limited to, the following types of data for each barrier facility in the number of sites listed below and described in Attachments E1 and E2. Attachment E3 is to be used as a design guide for possible pilot systems.

Alamitos Barrier Project			
Item	Sites	Wells	Monitoring Parameters - Logging transmission rate
Injection Wells	20	34	Flow rate, Injection head Packer pressure Vault flooding conditions Log parameters every 6 hours Transmit data daily
Extraction Wells	4	4	Flow rate Pumping water level Log parameters every 6 hours Transmit data daily
Observation Wells	16	45	Water level Log parameters every 6 hours Transmit data daily
Mainline Flow Meters		2	Flow instantaneous Totalizer flow volume Log parameters hourly Transmit data daily

ATTACHMENTS

List of Attachments			
	Att. No.	Title	No. of pages
	A	Technical Description of Seawater Intrusion Barrier System	12
	B1	Vicinity Location Map	1
	B2	Alamitos Barrier Facility Map	1
	B3	Dominguez Barrier Facility Map	1
	C1	Typical Injection Well Features	1
	C2	Typical Observation Well Features	1
	D	Los Angeles County Pump Plant Telemetry Sites	1
	E1	Alamitos Barrier Well Information Table	3
	E2	Dominguez Barrier Well Information Table	3
	E3	Possible Pilot System Configurations	3
	F	Summary of Proposed Telemetry System	1
	G	Proposed Telemetry System Concept Drawings	1
%	**H**	**Dams Automated Data Acquisition System, System Description**	**5**
%	**I**	**Spreading Grounds Telemetry System, System Description**	**3**

Attachment H

Dams Automated Data Acquisition System
System Description

(Not available online -
Please send request to: crotheim@lc.usbr.gov)

Attachment I

Spreading Grounds Telemetry System
System Description

LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS

SPREADING GROUNDS TELEMETRY SYSTEM
SYSTEM DESCRIPTION

I. OVERVIEW

The Los Angeles County Department of Public Works operates 27 groundwater recharge areas, or spreading grounds. These spreading grounds consist of unlined river bottoms and spreading basins and pits. Every year, the Department Conserves an average 220,000 acre-feet of storm water that would otherwise be wasted to the ocean. During non-storm periods, the Department supplements the artificial recharge program by about 75,000 acre-feet of imported water and 50,000 acre-feet of reclaimed water annually.

The Spreading Grounds Telemetry System (SGTS) was developed to improve the operation of the spreading grounds with a remote monitoring program. Implementing a reliable telemetry system will improve the Department's data management capabilities, reduce labor requirements, and achieve operational efficiency through automation.

The SGTS consists of two main components: Spreading Grounds Monitoring and Rubber Dam Control Systems. Spreading Grounds Monitoring will measure and calculate the information required to remotely manage the operations of each spreading grounds. The Rubber Dam Control System will replace the existing control panels with a system that will provide real-time remote control and monitoring of the rubber dams.

The Department has begun to implement the SGTS Pilot Program at San Gabriel Coastal, Citrus, and Forbes Spreading Grounds. San Gabriel Coastal Spreading Grounds Monitoring System is expected to be installed by October 30, 1998. The Rubber Dam Control System will be installed and operational by December 15, 1998.

II. SPREADING GROUNDS MONITORING

A. MODES OF OPERATION

1. Status Mode

The SGTS consists of two operating modes: Status and Operational Modes. During periods when the spreading grounds are not in use, the system will take gate status readings every fifteen minutes and basin levels daily and report readings whenever there is a change in status of one of the instruments. Once there is a change Status Mode of operation, then that particular spreading grounds will go into Operational Mode. Operational Mode consists of gate status readings and flow measurement at fifteen-minute intervals and basin levels at one-hour intervals.

B. DATA ACQUISITION SYSTEM

The following Section describes the various instrument types and the methods of Data Acquisition.

1. Water Level Measurements:

A DRUCK PTX-1830 pressure transducer will make water level measurements. The Pressure Transducer has excellent performance in applications where the sensor may remain dry for long periods and the 4-20 mA output signal allows for long cable runs. The Pressure Transducer is temperature compensated and vented to compensate for changes in the barometric pressure.

2. Gate Position:

There are four different types of "gate position" measurement options for the SGTS. They are as follows:

a. Open/Close Status: A limit switch will be installed when only the Open/Close Gate Status is required. A Square-D C54B2 or equal industrial grade limit switch will be used. The limit switch will be positioned on the gate so that it indicates when the gate is fully closed.

b. Gate Position:

(i) If there is no existing Electrical Motor Operator (EMO) and the gate position measurement is required, then a Celesco Cable-Extension Position Transducer will be installed.

(ii) If there is an existing EMO, then either a potentiometer will be added or a direct connection will provide the gate position measurement.

c. Radial Gate Position: In order to obtain the radial gate position, a tiltmeter will be used to measure the angle of the gate. Based on the angle of the gate, the radial gate opening will be calculated by the system. The tiltmeter model will be the Applied Geomechanics Model 800.

3. Flow Measurement:

The Accusonic 7500 shall provide measuring pipe flow. These instruments provide an effective measurement in conduits where slopes are relatively flat and velocities are slower.

4. Measurement and Control Units (MCU)

The Geomation Model 2380 MCUs are fully functional, low power intelligent field computer units that perform the following functions:

a. Connected directly to the sensors for measurement of physical data

b. Reduce readings to engineering units

c. Validation, screening, evaluation of readings, and buffering of data

d. Transmit measured parameters to a remote receiver MCU and a computer for storage

In most cases there are remote MCUs and the gateway MCU. An MCU called a gateway unit is the primary link/interface to the local on-site computer. Each gateway unit is also the link to/from the spreading grounds to/from the Department Headquarters. The remote MCUs transmit data to the gateway MCU using the Geomation's radio frequency

The MCUs come with software called GEONET Suite for Windows. This is the human interface to the MCU and the network. It is the primary software for an operator to view data and alarms, setup networks, and configuring measurement records. The GEONET software will store data in the Log files, History files, and in the SQL Database.

5. Communication

There are several communications options for the system. The primary communications method to each spreading grounds is the radio. The radio has a data transfer rate of 1200 baud per second. We will use the existing telephone service as a backup method of communication. The gateway MCUs will be equipped with a telephone network modem that operates with a transfer rate of 9600 baud per second.

6. Data Storage

Data is stored both locally at the spreading grounds in a computer and at the Department Headquarters Computer. The data is stored as text files for data retrieval.

III. RUBBER DAM CONTROL SYSTEM

A. SYSTEM FUNCTIONS

The purpose of the Bridgestone Rubber Dam Control System is to monitor and control the internal pressure inside of a rubber dam in order to maintain a constant height of the dam. High capacity air blowers and motor controlled exhaust valves regulate the inflation and deflation of the dam. Bridgestone Rubber Dam Control System Model 6X will provide the control of the mechanical devices that regulate the inflation/deflation. Bridgestone has updated the Model 6X with a spread spectrum radio link that provides a full-time data link to an industrial computer. This system will integrate with the SG Monitoring functions of the SGTS. The industrial computer located at Rio Hondo Headworks will function as the master for the slave controllers at the San Gabriel Rubber Dams. The Headquarters Base Station will network with the Rio Hondo Workstation using a T1 network connection.

B. OPERATION

The system can operate in Manual, Automatic, or Cascade Mode. In Manual Mode the operator selects the device on the computer screen, starts and stops each mechanical device as required. In Automatic Mode, the operator selects a pressure set point and the system maintains the internal pressure of the dam. In Cascade Mode, the operator selects the water level set point and the Control System operates the blower and valve as necessary to maintain the upstream water level.